



**U.S. Agency for International
Development**

**Final Report
Assistance with the
Implementation of the Ad Valorem
Property Tax in Poland**

**Prepared for the USAID Project
Assistance with Implementation of
the
Ad Valorem Property Tax in Poland
Contract No. PER-I-00-99-00002
And
The Ministry of Finance of Poland**

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September 2000**

*This report contains 31 pages
Project final report.doc*

September 28, 2000

Ladies and Gentlemen,

We are providing you our report on the project "Assistance with The Implementation of The Ad Valorem Property Tax in Poland". This project was designed to provide the government of Poland, who is interested in changing its method of funding local government, a strategy for helping local government to convert their current Property Tax System to a system that is based on the market value of real estate.

The project was supported by the United States Agency of International Development and the Ministry of Finance of the Government of Poland. USAID provided both funding and conceptual help for the project. Director Nowecki and his staff at the Ministry of Finance provided direction at every stage of the project and supplied the expatriate and Polish project staff with critical data describing the institutional resources available in every Gmina that could support a market value based project tax system.

The documents produced in connection with this project include the following:

- 1 Strategic Plan and Cost Benefit Analyses for Reform of the Polish Property Tax
- 2 Communication Strategy for Property Tax Reform in Poland
- 3 Cadastre construction and Maintenance for Ad Valorem property Tax Implementation in Poland
- 4 Market Monitoring

This final report contains summary's of these reports. Complete copies of each report may be obtained from the Embassy of the USA in Warsaw (USAID representative office), Warsaw, Aleje Ujazdowskie 29/31 Poland and from Mr. Nowecki, Director of Local Taxes and Cadastre Department in the Polish Ministry of Finance. It is our hope that this body of work will contribute to the development of strong and self sufficient units of local government in Poland.

Sincerely yours,

Joseph K. Eckert Phd.
Director
Barents Group/KPMG Consulting LLC
COP /Project for The Assistance
with The Implementation
of the AdValorem Property Tax
in Poland

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1 EXECUTIVE SUMMARY

The Government of Poland is interested in changing its method of financing local government. It wishes to help local government develop better sources of revenue. One option is to develop a property tax system that weights the real estate tax base using capital value (also called market value, or the Ad Valorem system). The USAID project "Assistance with Implementation of the Ad Valorem Property Tax in Poland", investigated the cost of creating such a system, developed a strategic plan for its implementation and estimated the impact on various stakeholders of converting from the current area-based system to the Ad Valorem system.

The investigation concluded that the current system burdened the capital value of land and building used for commercial and industrial purposes far more than it burdened the capital value of land and building used for residential purposes. Likewise, the current system benefits all uses of property that are better located compared to those that are not well located. The cost of implementation is expected to be 64,000,000 zloty committed over a period of eight years. A three-stage implementation path is envisioned.

The first stage allows tax rates to be differentiated based on land value zones. Its duration is expected to last five years, a period long enough to accommodate the collection of data describing residential and commercial buildings, which are for the most part lacking in the current system. A second stage lasting two years will be devoted to activities that are necessary to convert to an Ad Valorem system. This stage includes developing mass appraisal valuation approaches to valuing taxable real estate and defining within the legal structure the tax base as real estate (land and building together) and capital value as the weight for the base.

If the initial conversion is done using a revenue neutral tax rate, then initially gmina revenues will remain the same. The major impacts will be on taxpayers who own residential and commercial real estate as well as owners of real estate that are located in better serviced locations. The burden of taxation after conversion will shift from taxpayers who own commercial and industrial real estate to those that own residential real estate. Better located real estate of all uses will be more heavily taxed as compared to similar real estate in a poorer location.

While the shifts in burden are high in terms of percentage change, the impact in zloty due on actual tax bills will be reasonable because the current tax rates are low. If the tax reform was to be implemented today the estimated revenue neutral tax rate would be 0.515% of the capital value of real estate, which is low by international standards. The impact on household income will increase from .5% to 2% for the average household.

This is within the range typically found internationally. Lower income households may see tax burdens that approach 5%. Therefore, a well-developed set of exemptions based on ability to pay therefore should be put in place to protect taxpayers who are economically disadvantaged. Once the new system is put in place rising real estate values can be captured if short revaluation cycles are used. This will enable gmina income to rise without the need to increase the tax rates frequently.

2 PROJECT RECOMMENDATIONS

During the course of implementing the USAID funded project, "Assistance with Implementation of the Ad Valorem Property Tax in Poland," the professional staff of Barents Group and their key Polish Consultants were able to examine all of the important features associated with establishing an Ad Valorem Property Tax System in Poland. The documents produced in connection with the project include the following:

- 1 Strategic plan and cost benefit analysis for reform of the Polish Property Tax
- 2 Communications strategy for property tax reform in Poland
- 3 Cadastre construction and maintenance for Ad Valorem Property Tax Implementation in Poland
- 4 Market monitoring brief

These reports contain in some detail the policy analysis and recommendations that come from the project. Full copies of these reports are available separately while an overview of each report can be found in sections of this report. The strategic planning document provides an analysis of the impacts of the current system on taxpayers and outlines the structural and legal changes needed to covert the current system from a square meter based system to a Ad Valorem (capital value) based system. Our research showed that under the current system land and buildings used for business purposes carry a high burden of the current property tax yield as compared to residential land and buildings, and location effects are not considered in calculating tax liabilities.

For instance buildings used for non-agricultural business purposes account for about 5% of the capital value base of all real estate and only 2.5% of the taxable area under current system, but they contribute over 50% of the tax yield. Likewise buildings having the same taxable area pay the same amount of tax regardless of the quality of the

neighborhood where they are located. It is our finding that the current system lacks equity, transparency buoyancy and coverage.

Our first recommendation is that changing to a system where the tax bases is defined as real estate (land and buildings together), weighted by capital value will improve the performance of the tax system in those critical areas. A second major weakness in the current system is that the current Property Tax Information System is not organized by parcels of real estate but instead it is organized by owners. The system uses a self-discovery process whereby the taxpayer lists only his taxable square meters and use, but provides no location or descriptive information about the individual taxable properties.

We recommend that the Government establish a Fiscal Cadastre organized by a unified parcel record number and establish as the object of taxation each individual units of real estate (land and improvement). Establishing a Fiscal Cadastre, or property tax information system, with these organizational principles is critical to property tax reform in Poland. Physical descriptions of building and land are currently incomplete and are needed to estimate capital values. This information will have to be systematically collected and entered into the property tax information system.

A third recommendation is that if Poland is to convert to a capital a value (Ad Valorem System) then it must start a market monitoring program that systematically collects and analyzes market transactions. This information is the input to an appraisal system capable of mass appraising real estate parcels efficiently and quickly. Our research showed that the beginnings of such a system are already in place. The government now monitors the real estate markets in order to verify sale prices subject to the transfer tax, inheritance tax and gift tax imposed on real estate when it changes ownership. Initial valuation models have already been developed in many gminas.

The development of a modern property tax information system and market monitoring system will facilitate systematic discovery and valuation of all taxable property. It will also provide the information base for a good billing, collection and enforcement program. International experiences shows that tax collections and enforcement is enhanced when taxpayers feel that all taxable property is taxed and that uniform and transparent methods are used to establish capital values.

A fourth recommendation is that the government begins a public relations program that communicates specific messages to distinct target audiences. The three targets we identified are Central Government, Local Government and the General Public. The first two targets represent internal stakeholders in the property tax system while the General

Public represents external stakeholders. The messages about Ad Valorem reform will be delivered in a variety of ways, depending on the identity of the target audience.

For internal stakeholders the communication effort will emphasize that Ad Valorem reform will create a stable and predictable source of revenue for local government that will increase over time without a constant need for tax rate increases. For external stakeholders, the communications effort will emphasize that the reform will create a transparent and equitable property tax system and allow local government to improve public services.

Our recommendation regarding the pace of reform emphasizes a staged strategy. In the first stage the legal system will be modified to allow for different rates to be imposed on properties that are located in land value zones that are currently providing different levels of public services. This will allow tax burdens to begin to reflect public service levels and tie closer together tax payments and benefits in the form of city services and other location advantages. Stage one is expected to last five years and will encompass the collection of the data needed to assemble the fiscal cadastre and organize the data by a unified property identification number. The market monitoring and public relations program will begin at this stage as well.

A second stage lasting two years will be devoted to changing the tax base definition to real estate and weighting system for the base to capital value within the legal framework. Stage two will encompass the training of mass valuation experts and the creations of mass valuation models to estimate the capital values of each unit of the tax base. Impact studies will be undertaken to provide direction for the legal reform with regard to initial tax rates and types of income based tax exemptions. The public relations program will be designed to contain information about the winners and losers in the conversion process and provide examples of these shifting effects. Explaining taxpayer rights will also be an important part of the public relations program at this stage.

In stage three the new tax bills are sent out and the new system of taxations is started. Stage three has an infinite timeframe. The ongoing functions of data maintenance, market monitoring, billing collections and enforcement must be continued in order to keep collection high and capital value current.

3 COST OF THE SYSTEM

The cost of establishing the property tax system was estimated to be 64,000,000 zloty to be committed over an eight year start up period. A large share of that cost is associated with creation of the Property Tax Information System (Fiscal Cadastre – see the section Overview of Cadastre Construction later in this report) and the hardware and software support needed to manage the data in the system. In the initial stages the new system will use revenue neutral rates. Gmina income therefore will not increase until the system is in full operation. Full discovery of taxable property is expected to expand the tax base by 5-7% and a gradual increase in the value of the tax base is expected to be 2% per year as real estate markets become more efficient and robust. These effects should be realized within the first several years of operation. Details of estimated project costs are provided in tables on the following two pages.

Table 1: Country-Wide Cost Estimate for Stage I

Item	Cost Increase Over Five Years of Stage I
Computers	2,107,000 PLN ¹
Software	5,959,800 PLN ²
PTIMS Development	800,000 PLN ³
Development and Production of Forms	5,023,855 PLN ⁴
Data Collection Buildings	5,268,084 PLN ⁵
Data Collection Land	11,495,245 PLN ⁶
Market Monitoring	0 PLN ⁷
Public Relations	4,000,800 PLN ⁸
Five Year Total Cost	34,654,784 PLN
¹ Computer costs are based on establishing fiscal cadastres in powiats with server based technology proposed for 60 cities and high end PCs elsewhere. $(310 * \$1000 \text{ (PC price)} * 4.3\text{sl}) + (60 * \$3000 \text{ (PC price)} * 4.3\text{sl}) = 2,107,000 \text{ PLN}$	
² Assumes Oracle for server based environments in the 60 cities and Personal Oracle elsewhere. $(310 * \$600 \text{ (Personal Oracle)} * 4.3\text{sl}) + (60 * \$20,000 \text{ (Server Oracle)} * 4.3\text{sl}) = 5,959,800 \text{ PLN}$	
³ Assumes Ministry of Finance develops PTIMS and distributed to powiats.	
⁴ Assumes Ministry of Finance develops and prints a common form for the entire country $(0.42\text{sl} * 11,991,559 \text{ taxable entities})$.	
⁵ Assumes all industrial buildings will be collected and 10% of residential. $(0.6\text{sl} * 878,014 \text{ taxable entities})$.	
⁶ Assumes data on all residential and business land parcels will be collected using in-house resources $(2.75\text{sl} * 4,152,261 \text{ taxable entities} = 11,495,245 \text{ PLN})$	
⁷ Assumes that cost of market monitoring already covered in local budgets.	
⁸ Assumes materials and approaches developed by Ministry of Finance.	
Note: All prices applied for computers, software and data collection can be found in the Cadastre Construction Brief.	

Table 2: Country-Wide Cost Estimate for Stage II

Item	Costs Over 2 years of Stage II
Start up of the Technical Unit	800,000 PLN ¹
Training	400,000 PLN ²
Upgrade Level of Administration	14,148,490 PLN ³
On-going Public Relations	200,000 PLN
Total Cost	15,548,490 PLN
^{1.} This unit should include as new personnel: 2 statisticians, 4 appraisers and 2 computer specialists. Hardware needs will be 1 server with 8 work stations and Oracle Software. ^{2.} Cost includes development of computer assisted appraisal courses and teaching the course at 8 regional sites over 2 years. ^{3.} Add 1,170 appraisers system wide at a cost of 6,000 PLN per year for each appraiser over the two year period. One appraiser should be added per 10,000 tax estimates	

Table 3: Country-Wide Cost Estimate for Stage III

Item	Cost First Year
Carry over and maintain administration upgrade	14,148,490 PLN (Carry over administration upgrade)
Total	14,148,496 PLN

4 BURDEN SHIFTS

Tax burdens will shift between classes such that they will become proportional to the percent of capital value each property class (e.g. residential, commercial, etc.) represents in the tax base. From the standpoint of burden shifts this means that households will experience an increase in the tax burden country wide after the reform from about one half of one percent of household income, to about 5 percent of household income. The average impact per taxable residential property entity will increase from about 50 zloty to 666 zloty after the reform. The burden on industrial and commercial entities will fall from 6500 zloty to 555 zloty per taxable entity after the reform. More details on tax shifts can be found in the document "Strategic Plan and Cost Benefit Analysis for Reform of the Polish Property Tax System".

5 SEMINAR RESULTS

The results of this study were presented in a workshop at the end of August 2000. The feedback was quite positive. There were questions about the high burden on industrial and commercial properties and how much of the burden should be allowed to shift on to individuals as a result of the reform. There were discussions of this issue and the consensus was that this issue needs more study. Commercial and industrial taxpayers may already be shifting the tax burden on to consumers. If this is the case then creating a more transparent system may be advisable and constructive.

Other comments addressed the need to create a sustainable body of Polish interest groups that will support the tax reform at all stages of implementation. The establishment of an intra-governmental working group and other consensus building activities that were originally introduced as part of this project were not implemented as a result of the changes in government. Several seminar attendees believed that these efforts are critical for the success of the reform and need to be started now.

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OVERVIEW OF THE STRATEGIC PLAN AND COST BENEFIT ANALYSIS FOR REFORM OF THE POLISH PROPERTY TAX SYSTEM

Poland is undergoing a reform of the methods of financing municipal government. The general principles of this reform are to reduce reliance on intergovernmental transfers and encourage the development of municipal sources of own-income. The development of local property taxes that are tied to the capital value of the real estate should be an important part of this strategy. A capital value system (ad valorem) is especially suitable for this reform because it automatically ties public services levels and property tax together in direct correspondence. Capital values are in part determined by service levels and location functions. Therefore, as a weighting scheme it is a good proxy for public service levels. Modern methods of management are also available that allow for the development of the fiscal cadastre aided by inexpensive database technology and aerial photography. Computer assisted valuation methodology can be employed to reduce the cost of valuing properties and updating values over time.

Evidence that we developed from this project convinced us that modern methods of mass valuation can be put in place in Poland soon, as the sales data and the skilled appraisal knowledge is already available in Poland.

Discovery of taxable property, assessment, collection and enforcement can be considerably enhanced by a capital value system that uses modern discovery principles and geographic information systems to ensure that all taxable property is identified and all taxes collected. Public understanding and acceptance of the new system and the need for political consensus problems that hindered reform of local government finance in the past can in part be addressed as a well-developed capital value system embraces the principles of equity, transparency and buoyancy.

Equity is achieved when all property owners are assessed their fair share of the property tax. An ad valorem property tax system uses the capital value (also called market value) of property as the basis for the tax. Under the ad valorem system the property tax can be measured as a percentage of the value of the property subject to the tax. This is known as the effective tax rate.

Many Western countries have effective tax rates around 1 percent of property value. For example, using a 1 percent effective tax rate, the annual property tax bill would be \$100 USD on a property valued at \$10,000 USD. The annual property tax bill on a property

valued at \$100,000 USD would be \$1,000 USD. Thus, the effective tax rate would be the same for both properties although the more valuable property would pay more taxes. Therefore, an ad valorem tax is essentially a tax on wealth, as the amount of the tax increases as the value of the property increases.

Under the current area-based system in Poland, the owner of less valuable property would pay the same tax as a more desirable and valuable property that is the same size. For example, under the current system, the tax due on a 40 year old eighty square meter flat located 40 kilometers from Warsaw would be the same as the tax due on a brand new eighty square meter flat located in the center of Warsaw. It seems inequitable that the tax due on a highly valuable property would be the same as the tax due on a very low valued property, even if they are the same size.

Another facet of equity concerns a basic assumption of the ad valorem system: people that own more valuable property are more likely to be able to pay more taxes. That is, properties that are newer, of better construction quality and located in the best areas are more likely to be owned by people that can afford to pay higher taxes. This is particularly true in developed market-based economies. We expect this to be a factor as the market-based economy matures in Poland.

Transparency is an important objective in any tax system. In a property tax system, transparency is achieved when the process by which property taxes are calculated is simple, straightforward and publicly available. Moreover, transparency in a property tax system can only be achieved when tax calculations for all properties are made available to the public. That is, any person must have access to property tax information about any property. Today this is not permitted and thus there is very little transparency in the current system. This means that it is not possible for people to compare their property tax burden to others and determine whether the tax they pay is equitable.

Buoyancy refers to the ability of a tax to generate a revenue stream that is durable and predictable even as economic conditions fluctuate. For example, value added taxes (VATs) do not tend to be buoyant. They fluctuate depending on the volume and amount of sales. That is, revenues from VAT tend to decrease as sales activity decreases and increase as sales activity increases. As the economy expands VAT revenues increase, but during a recession VAT receipts decrease.

On the other hand, the ad valorem property tax is inherently buoyant. While underlying property values can fluctuate over time, assessed values and tax rates only need to be adjusted annually in order to produce a constant and predictable revenue stream. The

current area-based property tax system is completely detached from economic trends. This is in contrast to the ad valorem system that is based on property value and therefore closely linked to economic trends. It features built-in buoyancy.

Important non-revenue benefits will also improve urban efficiency. The current system of property taxation sends no signals to the investors in land about where land is scarce. A capital value system will do this and therefore influence a better utilization of land, discourage land speculation and encourage the right investments in urban infrastructure. In the long run, this will help improve the efficiency of municipal resource allocation and management.

While the Strategic Plan considers the above referenced principles of taxation, it was also developed based on research and economic analysis of the Polish condition. The plan was informed by two original databases developed specifically for this project. The first database was developed from an institutional study of the gminas current administration practices relative to property tax administration. The second database was developed from a market-monitoring instrument. It provided us with market price information for all tax classes of taxable real estate at the gmina level.

The two databases together allowed us to document the impact of the current situation so we knew the starting point. This made it possible to elaborate design features that if adopted would bring Poland's new capital value system to world standards of efficiency and equity.

The implementation strategy therefore addresses the technical requirements necessary to convert to a capital value system. In addition the strategy proposes policy options that address the basic inequities in the current system that if allowed to migrate into the new system would produce economic distortions. For instance, under the current system tax burdens are based on the size and use of the property only. In the first instance all types of uses are discriminated against if their properties are located in a poor location. In the second instance the system heavily taxes business uses of property relative to residential uses. For example, the capital value of buildings used for business purposes represents about only 5% of the total capital value of all buildings in the country. However, this class accounts for over 50% of the tax yield from the property tax. The average effective tax rate on the class is about 6% which is high by world standards. The average tax bill per residential building entity is approximately 50 zloty (or about \$12 USD) but is over 7,000 zloty (\$1700 USD) for a taxable business entity (exchange rates varied from roughly 4.1 to 4.3 zloty per 1 US dollar at the time this report was written).

This plan outlines policy options that would eliminate this type of distribution of the tax burden by applying a common rate to the capital value of all real estate no matter what the use. If this strategy were adopted then the tax burden in the above example would shift such that the residential entity would pay about 600 zloty (\$145 USD) while the business entity would pay 550 zloty (\$130 USD). More importantly the yield would be divided based on the capital value of each use class as the sole criteria. Our study confirms that the shifts in tax burden needed to build this type of transparency into the property tax system appear to be acceptable.

The cost of establishing the system was estimated at approximately 64,000,000 zloty (\$13 million USD) to be committed over a seven year period. Revenue increases from eliminating certain exemptions, a small proposed rate increase, and the natural buoyancy of revenues in the new system should more than pay for the installation of the new system and its ongoing maintenance. While resistance to reform might be expected from residential taxpayers, as a class the property tax burden represents about 0.05% of the capital value of residential land and buildings. This is low in comparison to world standards of 1% of capital value.

A final simulation was performed to gauge the effect of tax shifts between residential and commercial properties after moving to an ad valorem system. We studied the relationship between personal income of taxpayers and property taxes. The result was that the total tax burden would be low for high income residential property owners as a percentage of their income, but high for low income residential property owners. Thus it is felt that some adjustment in income tax rates may be necessary if a fully transparent and equalized property tax system is to be put in place. Exemptions based on personal income, household income and the size and type of the real estate unit will need to be put in place to protect disadvantaged taxpayers as well.

A table that summarizes the features of each stage can be found on the next page.

Table 4: Primary Features of Each Stage of the Reform.

<u>Stage I</u>	<u>Weight/rate</u>	<u>Tax base</u>	<u>Administration</u>
Completion time : 5 years	<ol style="list-style-type: none"> 1. Allow rates to vary by location of the property for all land uses. 2. Tax industrial properties based on 1% depreciated book value. 3. Use revenue neutral rates initially. Increase tax rates by 5% and earmark revenue increase to cover the cost of fiscal cadastre construction. 	Eliminate Exemptions	<ol style="list-style-type: none"> 1. Start development of a PTIM system 2a. Require taxpayers to list property characteristics on their self declaration 2b. Require industrial taxpayers to list the depreciated book value of their property 2c. Require property owner to list the street address of all properties 3. Start public relation campaign. 4. Develop legal structure. 5. Begin market monitoring. 6. Begin the data collection for buildings needing full inspection. Collect land data. 7. Install PTIM system in the tax offices and begin data entry. 8. Complete entry of land data. 9. Complete building data collection. 10. Enter building data into PTIM system.
<u>Stage II</u>	<u>Weight/rate</u>	<u>Tax base</u>	<u>Administration</u>
Duration: 2 years	<ol style="list-style-type: none"> 1. Weight the base using capital value. 2. Develop revenue neutral rate. 	<ol style="list-style-type: none"> 1. Define real estate as the tax base. 2. Install exemptions based on income of taxpayers. 	<ol style="list-style-type: none"> 1. Ongoing data maintenance. 2. Update mass appraisal valuation models for all units of real estate. 3. Develop automated appraisal program.
<u>Stage III</u>	<u>Weight/rate</u>	<u>Tax base</u>	<u>Administration</u>
Time : Indefinitely	<ol style="list-style-type: none"> 1. Update capital values using mass appraisal models yearly. 	Keep the same	<ol style="list-style-type: none"> 1. Ongoing data maintenance. 2. Ongoing mass valuation. 3. Ongoing public valuation.

7 OVERVIEW OF THE COMMUNICATIONS STRATEGY

The Strategic Plan indicates that the shift from the present area-based system to the full ad valorem system will involve three stages and take several years to complete. The most crucial step is the first stage, involving the introduction of simple elements of ad valorem philosophy into the existing property tax system. This stage will require implementation of effective public education and communication strategy as described in this report.

The communication strategy presented is designed to communicate specific messages to distinct target audiences. The three main target audiences are the central government, the local governments, and the general public. The first two target audiences together represent the internal stakeholders in the property tax system, while the third target audience represents the external stakeholders. Each of these audiences consists of a number of distinct groups with separate interests and concerns. The internal stakeholders include the elected officials and government policymakers and experts who will decide whether and how ad valorem reform is implemented. The external stakeholders include individual and business taxpayers, the media, and business organizations, who will react to the proposed changes in the property tax system. The internal and external stakeholders are closely linked because the internal stakeholders must take the external stakeholders' views into account when government policies are decided and implemented.

An effective communications strategy must identify the distinct groups in each target audience, tailor the message for each group, and then deliver the message using a variety of communication techniques. The internal and external stakeholders will interact as ad valorem reform proceeds and government seeks public support for reform and responds to evolving public opinion. Therefore, an effective communications strategy must be flexible, allowing rapid changes in the content and timing of messages and the selection of target groups throughout the reform process.

Each of the three main target audiences will receive specific messages about ad valorem reform, delivered at the most appropriate time in the reform process. The internal stakeholders in the central government should be informed about why ad valorem reform is needed, and encouraged to actively support reform. The internal stakeholders in the local governments should be informed about how ad valorem reform will benefit

local governments, and encouraged to lobby the central government on behalf of reform. Finally, the public should be informed about what is involved in ad valorem reform, and persuaded to accept major changes in the property tax system.

The communication strategy will have two guiding principles. For internal stakeholders, the communication effort will emphasize that ad valorem reform will create a stable and predictable source of revenue for local government. For external stakeholders, the communication effort will emphasize that reform will create a transparent and equitable property tax system for taxpayers and will allow local governments to improve public services.

The messages about ad valorem reform will be delivered in a variety of ways, depending on the identity of the target audience. A variety of communication techniques will be employed, including organized seminars and information handbooks for central and local government officials, formal presentations for government and business organizations, information brochures mailed to individual and business taxpayers, press releases and briefings for media representatives, public service announcements on radio and television, and information posters displayed in public places.

Past efforts at ad valorem reform (see Appendix A) offer several lessons for current efforts to modernize the property tax system. First, there must be consensus about the need for ad valorem reform within the central government for reform efforts to succeed. Second, the Ministry of Finance is the appropriate government agency to lead the reform. Third, local governments can be most effective in seeking ad valorem reform by working as vocal advocates for reform outside the central government. Fourth, ad valorem reform is intimately related to broader efforts to achieve fiscal decentralization, and should be synchronized with local finance (fiscal decentralization) reform. Fifth, ad valorem reform depends on initial revenue neutrality, and must also provide some non-fiscal benefits for taxpayers. Finally, ad valorem reform cannot succeed without the aid of a concerted public education and communication campaign to inform taxpayers about the multiple advantages of a modernized property tax system.

Based on international experience, even a well-designed property tax reform program may fail without an effective communication strategy. Systematic efforts to provide taxpayers with adequate information prior to the implementation of property tax reform can only relieve taxpayer concerns and increase the likelihood that reform will succeed.

The first stage of reforming the existing area-based property taxation system by introducing an ad valorem formula has three distinct phases. The first "intra-

governmental” phase is currently underway, and involves the preparation of a draft law by the government. This phase involves a number of steps. Initially, a leading department of the Ministry of Finance develops a draft law and consults about it with other ministries and consultative bodies. In this case, the Department of Local Taxes and Cadastre has already produced a draft law that was subsequently approved by the leadership of the Ministry of Finance. The Department recently sent this draft to other ministries and the Joint Committee of central and local governments for their comments. Once the comments have been received and analyzed, the Department will present the leadership of the Ministry with its view on how to respond to the comments. Usually, some changes are acceptable while others are not, requiring resolution of the issue at a higher level. The Department is currently working on collecting and analyzing the comments. The leadership of the Ministry will soon need to decide how to resolve unacceptable changes proposed by other bodies. Subsequently, the Ministry will send its draft law, including comments from other bodies, to the Economic Committee of the Council of Ministers (KERM), where a further attempt will be made to resolve differences and report a formal opinion to the Council of Ministers (Cabinet). The original draft law may undergo a variety of changes during this process, but there will be little opportunity for the proposed communication strategy to influence events as this process proceeds smoothly.

The second “Parliamentary” phase will begin when the government sends the draft law approved by the cabinet to Parliament’s lower house (Sejm) for legislative debate and final adoption. The draft law will be introduced by a representative of the leading ministry at a first reading. In this case, a representative of the Ministry of Finance, most likely the Vice-Minister, will make the presentation. The draft law may be rejected outright or else sent to a public finance committee for consideration. Since the draft law deals with other matters besides public finance, a special subcommittee may be created to consider the draft law, with members drawn from other committees dealing with housing, real estate, or urban development. The most likely scenario is that a special subcommittee will be formed to develop recommendations for the public finance committee, which will then vote on final recommendations to the Sejm. Much may still happen during an open reading in the Sejm to affect the course of events. Laws adopted by the lower house are sent to the upper house (Senat) for possible modifications and changes. Laws are then returned to the Sejm, which can accept the Senat changes or else overrule them with a sufficient majority. After final adoption by the Parliament, laws are sent to the President for signature. The President may choose to use his veto power, and may in turn be overruled by a sufficiently large majority in Parliament. The second phase of the reform process may therefore be quite lengthy, and much will depend on government will to enact the law, as well as the parliamentary atmosphere

and the development of consensus about the law. Laws may be fast-tracked in cases where there is a legislative loophole, when the laws concern the national budget or national security, or for simple political expediency. It is unlikely that the draft law on ad valorem reform will meet any of these circumstances, and therefore it is very difficult to predict how long the Parliamentary phase will take.

The third "implementation" phase will begin after the law has been signed and must then be implemented. The focus will accordingly shift from the political arena to the administrative arena, and the process will mostly involve local governments and taxpayers. A number of ordinances will have to be issued to operationalize the law and a number of organizational activities will need to be undertaken. At the same time taxpayer compliance must be assured if the new law is to be effective. The process of preparing local governments and taxpayers is currently expected to take one year, but this period may be altered during the legislative phase.

8 OVERVIEW OF CADASTRE CONSTRUCTION

The cadastre should include the physical characteristics of all buildings and the associated land and all vacant land which has the potential for being an object of property taxation. The focus must be on acquiring, initially, only the property characteristics required to develop a valuation upon which the tax may be assessed and the taxpayer to which it should be billed. The required data includes occupancy and ownership information including location of where the tax bill is to be delivered, the name of the property owner, physical characteristics of the land and buildings, and any adjustments for privileges and exemptions. The Property Tax Administration must develop a good working relationship among and between the various ministries which maintain data to be used in the cadastre. For such purposes, a working group, made up of members of the relevant agencies can be formed with the objective of providing an understanding of the need for development and maintenance of the cadastre. In addition to establishing working procedures, the working group provides a forum for problem resolution.

For purposes of development of the Cadastre, the physical characteristics of the property (land and buildings), are the **object** of taxation. Information about the taxpayer, such as name and address, and property rights are the **subject** of taxation.

In order to begin the massive data collection necessary for building this property tax database (fiscal cadastre), the location of all required data must be identified. Generally,

land data is collected and maintained by the Ministry of Interior (physical cadastre), some building data is collected as well. Information about the subjects (taxpayers) resides with the Ministry of Finance (fiscal cadastre). Information about rights resides with the Ministry of Justice (legal cadastre). A relationship diagram showing these entities can be found in Appendix Two.

The data requirements are determined by the valuation methodology to be used. The final stage of the property tax reform is based on determining a market value of properties for purposes of the property tax. Through experience in the computer assisted valuation methodology for determining market value in several Polish cities, the data attributes necessary to build reliable models has been determined. Of course, there may be instances where special circumstances require additional data, but this will be the exception.

Table I indicates the data characteristics which must be in the fiscal cadastre in order to produce a valuation using computer assisted valuation methodology.

Table 5. Object Data Attributes and Data Location For Market Value and Tax Calculations.

Economic Attributes	Data Location
<ul style="list-style-type: none"> • Transaction Type (Sale, Auction, Privatization, Gift, Inheritance, etc.) • Sale Price • Sale Date 	Notary
Property Location Attributes	Data Location
Property Location: <ul style="list-style-type: none"> • District/Gmina/Powiat/Voivod • Building/Street Number (For Improved Properties) • Street Name (For Improved Properties) • Apartment Number (If applicable) • Building Name (If available) • X Y Coordinate (If available) 	Physical Cadastre
Land Attributes	Data Location
<ul style="list-style-type: none"> • Cadastre Number • Major Land Use • Land Area(M2) • Public Services Available • Water • Sewer • Electricity • Gas • Heating Network • Telephone 	Physical Cadastre and Notary

Building Attributes	Data Location
Primary Buildings: <ul style="list-style-type: none"> • Major Building Use • Total Floor Are (M2) • Footprint (M2) • Number of Stories • Average Floor height (CM) • Year of Contruction • Year of Major Capital Repair • Exterior Wall Type • Number of Elevators • Type of Utilities Secondary Buildings: <ul style="list-style-type: none"> • Object Use • Number of Balconies • Number of Loggia • Total Area (M2) • Living Area(M2) • Kitchen Size (M2) • Number of Rooms • Number of Telephones • Year of Valuation 	Physical Cadastre Architects Archives Notary (much of this data will need to be collected in the field)
Subject and Rights	Data Location
<ul style="list-style-type: none"> • Taxpayer Name and Address • Taxpayer Exemptions • Type of Ownership Rights 	Ministry of Finance (Fiscal Cadastre) Ministry of Justice (Legal Cadastre)

The data attributes listed in Table I become the basic data used to construct the valuation models. Once the valuation models have been determined, the values are computed for each property in the cadastre. A tax bill is then produced.

Table 6. Data Requirements For Tax Bill

DATA ELEMENT
PIN (Cadastre #+ building locator)
Assessed Value (Fiscal Value)
Land Value
Building Value
Taxable Value
Overall Use (type)
Land Area
Building Area
Share (percentage)
Tax Liability
Current Year
Previous Liability
Taxpayer Rights to the Property
Property Address
Taxpayer Type
Natural Person
Legal Person
Taxpayer Name & Address

The first stage of the reform envisioned by the Ministry involves simply adding a location adjustment to the tax rate that now is used to compute the land tax and the building tax. Thus, the database for each jurisdiction would have to be recoded such that each land parcel and each building would be assigned to the right zone number and tax rate. Additional data needs at this stage would be to collect for each land parcel the attribute data on existing public services to help determine the land zones.

The final stage of the reform envisions a complete transition to a tax on real estate (land and improvements together). At this stage, a full discovery process would be undertaken and made the responsibility of the property tax department of each jurisdiction. This would require updating existing maps with aerial photography and then conducting a massive data collection effort to capture all of the improvement physical attributes. After this data collection effort was completed then valuation models would be constructed to predict the value of the land and improvements together. The tax on land separately and on improvements separately would be eliminated in favor of one tax on real estate. Administrative costs would also increase as the new structure would have to employ skilled appraisers capable of creating mass valuation models and defending the values assigned to each parcel of real estate and who could handle the discovery aspects of the ad valorem property tax on an ongoing basis.

Table A summarizes the one-time installation costs of the new system and Table B summarizes the cost for the ongoing administration system. Table C indicates the data needs for phase one, the land zone reform and stage II of the full ad-valorem reform.

The total one-time costs could be absorbed over several years or all at once. They depend also on the availability and condition of the current data on real estate parcels in each jurisdiction that will convert. For instance, in cities where both the land public service data and the attribute data for improvements are already in electronic form or at least in paper form, the cost of data collection would be in the range of .13 to 3 zl per parcel. If the map data was already in electronic form, it would cost .02 zl per parcel to be added to a Geographic Information System (GIS) database.

However, for every jurisdiction where the public service data for land and attribute data for improvements were not available, at least in paper form, then an on-site inspection of the property would be completed in one year and the data collectors are paid 12000 zl per year. If the time to complete this was lengthened from one year to, say, 3 years, the costs would fall to 2 zl per parcel per year as the number of appraisers hired and the

amount of data collected each year would fall proportionately to the time increase. Likewise a jurisdiction with up to date paper maps would have to digitize them at a cost of 16 zl per parcel. On-site inspections would also have to be made for all newly discovered properties. The positive side of this however would be that the tax base would increase. The cost of valuation software and GIS software would have to be added to the data collections cost to be able to convert the raw data to a valuation formula. These cost total about 4500 zl per jurisdiction.

In order to price the cost of a jurisdiction an analysis would have to be made to determine the state of the existing data. For instance in Krakow if 50% of the real estate was available in electronic format, 25% was in paper form and 25% needed to be collected in the field, then Table A could be used to price the startup cost for the full system. Krakow has 150,000 parcels of real estate. Therefore the total cost of data collection would be about 347,250 zl ($75,000 \cdot 13 \text{ zl}$) + ($37,500 \cdot 3 \text{ zl}$) + ($37,500 \cdot 6 \text{ zl}$). The jurisdiction already has electronic maps that are up to date, therefore the map costs would be 3,000 zl ($150,000 \cdot .02$). Software cost would be 4,500 zl. The total cost would then be 354,750zl.

Ongoing costs would also have to be computed. Table B summarizes ongoing costs. Staffing requirements and computer and hardware costs that would have to be budgeted. For instance, in Krakow the new system would require 48 staff ($150,000 / 3,100$). You would need thirty appraisers/data listers to maintain the database, ten review appraisers to meet with tax payers and defend values in the appeals process, two mass appraisers to maintain the valuation models, seven support staff and one administrator. A nationwide capacity study would have to be undertaken to insure that the technical skills are available and an education program would have to be developed to train staff where deficiencies are noted.

Appropriate hardware and database software would need to be provided as well. Part of this cost might be covered in existing budgets for the current property tax administration. The following tables assume that at the final stage the functional discovery and data gathering would become the function of the tax administrator. The current system uses a disclosure document which each taxpayer fills out to determine tax liability. Continued use of this self discovery document could be used to collect some listing data for residential properties. This strategy would cut costs. However, it should not be used to capture data on complex industrial and commercial properties.

Table 8: Ad Valorem Tax System -- Installation Start Up Costs
Estimated Cost per Parcel for Data Collection

	Existing Data Format		
Type of Data	Electronic	Paper	None
Physical Attributes	.13 zl	3zl	6 zl
Map Data	.02 zl	16 zl	24 zl

Table 9: Estimated Cost per Copy for Software

Software Type	Estimated Cost per Copy	Example
Statistical/Modeling	1600 zl	NCSS
Mapping	4800 zl	Arc View

Table 10: Ongoing Management Costs Of an Ad Valorem Property Tax System

Parcels	Under 10,000	10,000-50,000	50,000
Total staff	1 PER 1800 Parcels	1 PER 2200 Parcels	1 PER 3100 Parcels
Computers	1 high end PC	1 high end PC	1 server with 8/16 stations
Database Software Assumes Personal Oracle for cities with parcel count under 50000 and Oracle for a server environment for larger cities	2400 zl	2400 zl	80000 zl

Table 11: Data needs listed by phase

Parcel Identification Number	Phase I
Address of lot (street name)	Phase I
X coordinate	Phase I
Y coordinate	Phase I
Obreb number	Phase I
Planned land use (e.g.shop,office,industrial,residential low density,etc)	Phase I
Area of lot (in square meters)	Phase I
Number of buildings on the lot	Phase I
Building function type(Use:shop,office,apartment,single family,garage,etc)	Phase I
Building/development type (e.g.detached,attached)	Phase I
Area of building (in square meters)	Phase I
Appraised building value (if available)	Phase I
Appraised land value (if available)	Phase I
Ownership type (e.g.perpetual use or owned)	Phase I
Transaction Price	Phase I
Date of Transaction	Phase I
Buyer type	Phase I
Seller type	Phase I
Transaction type(eg. Auction,sale)	Phase I
Transaction reliability	Phase I
Number of buildings in the transaction	Phase I
Number of lots sold in transaction	Phase I
Percentage of ownership	Phase I
Access to public transportation	Phase I
Cable TV	Phase I
Electricity	Phase I
Gas supply	Phase I
Heating network	Phase I
Sewer	Phase I
Telephone	Phase I
Water	Phase I
Land topography(e.g.level,sloping,steep,wet,etc)	Phase II
Building construction type (e.g.brick,wood,etc)	Phase II

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Building construction quality(e.g.excellent,good,fair,poor)	Phase II
Building condition(e.g.excellent,good,fair,poor)	Phase II
Building year built	Phase II
Number of bathrooms	Phase II
Number of rooms	Phase II

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9 OVERVIEW OF MARKET MONITORING

A property tax system that is based on market value requires up to date information about property sale transactions. The basic information required includes sale price, sale date, seller name, buyer name and a physical description of properties involved in sale transactions. The process of gathering and analyzing information on sale transactions is called "market monitoring".

A systematic process of market monitoring leading to the creation of a sales database does not currently exist in Poland. The creation of a database of valid sale transactions is a critical aspect of an ad valorem property tax system. The sales database is used to develop property valuation models based on actual real estate market activity. Thus, the main objective of market monitoring is to establish a database of arms-length sale transactions that can be used to develop property valuation models. Once developed and tested on the sales database, property valuation models can be used to estimate property values for unsold properties as well, resulting in a complete fiscal cadastre for all properties based on market value.

The general market monitoring process involves a review and validation of each sale transaction leading to creation of a database of all transactions. First, each transaction should be classified as to whether it is a valid arms-length sale. For example, transactions between members of the same family should be classified as non arms-length. Next, the sale price should be reviewed by a person familiar with the local market. Sale prices that appear too low or too high should be investigated to see if the sale price reflects market value. A detailed breakdown of market monitoring steps appears below in the Methodology Section.

The market monitoring process requires access to market information. Currently, all property sale transactions in Poland are conducted at an office of a notary public. Notary offices are owned and operated by private individual notary publics. A deed of conveyance is recorded at the office of the notary public. By law, the notary must send a copy of the deed to three different governmental agencies: Ministry of Finance, Ministry of Justice and Ministry of Interior. A unit within each agency maintains a different cadastre for various purposes.

The Ministry of Interior maintains the physical cadastre relating to land and buildings. The physical cadastre is fairly complete with respect to land parcels but is rather limited

in terms of building characteristics. Geographic Information Systems (GIS) are used by some municipalities to maintain the physical cadastre. Included is information on soil type, building footprints, number of stories and building materials.

The Ministry of Justice maintains the legal cadastre, also called the perpetual books, concerning ownership records relating to property. There is only limited coverage of properties in Poland resulting in an incomplete legal cadastre.

The Ministry of Finance administers various property-related taxes including transfer, gift, inheritance and regular property taxes. The Ministry of Finance maintains the fiscal cadastre that has information on property owners, taxable objects and tax liabilities. Property taxes are self-assessed and are based on the area and type of property. Tax rates differ for land and buildings and are further differentiated by use (e.g. residential, commercial, etc.).

Tax offices of the Ministry of Finance already monitor market activity in connection with the administration of transfer, gift and inheritance taxes. These taxes are based on the market value of the property involved. When sale prices declared on deeds appear to be too low, the tax office conducts an investigation. As such, the tax offices regularly perform market monitoring functions.

In addition to the central public institutions mentioned above, some local gminas have established market monitoring units. Also, private valuers and research organizations, such as the Krakow Real Estate Institute, perform some market monitoring activities. However, these sources do not provide enough coverage to begin to address the market monitoring needs of the ad valorem system throughout Poland.

Valuers, real estate brokers and mortgage lenders can contribute to the market monitoring process. For example, they may provide useful information about specific sale transactions when called upon to do so. Thus, there is a role for the private sector to assist in the market monitoring process. However the private sector cannot be expected to manage the market monitoring process. A unit of government that has been assigned specific responsibility for the task must perform management of the overall market monitoring process. Moreover, the unit of government managing the process should have stake in the outcome in order to ensure proper attention is given to the process.

Market monitoring activities will need to be intensified in preparation for the introduction of land value zones leading to the introduction of the ad valorem property

tax system. Information that is normally found in the legal, physical and fiscal cadastres will need to be drawn upon to assist in the market monitoring process.

Public administration in Poland occurs on four levels of government: central, voivod, powiat and gmina. Central government equates to the national government. Under this there are 16 voivodships that are regional in nature. The next level includes 373 powiats that roughly equate to county level government in the United States. Finally, there are approximately 2,500 gmina level units of government that operate as towns, cities or districts within larger cities. Larger cities (e.g. Warsaw, Krakow, Gdansk) operate both as powiat and gmina level governments.

The responsibility for market monitoring in connection with the property tax should be assigned to a unit of the Ministry of Finance. As mentioned previously, Ministry tax offices currently perform various market monitoring functions. These offices exist primarily at the powiat level. We recommend extending the responsibility of existing tax offices to include market monitoring for purposes of establishing the property tax.

A Market Monitoring Unit (MMU) should be established at each powiat to monitor real estate transactions (land and buildings) for supporting the administration of the property tax. The staff of the unit should be made up of one or more professionals depending on the size of the powiat. Powiats that include larger urban centers (e.g. Warsaw) should include several sub-offices at the gmina (district) level.

Staffing should include people with a good working knowledge of the local real estate market as well as information technology (IT) specialists capable of developing and maintaining a real estate database. The number of staff required would vary depending on the number of sale transactions that occur each year within the jurisdiction. Staffing levels should include at least one person per 1,000 sale transactions per year. Thus, if there are an average of 5,000 transactions in a jurisdiction every year, then 5 staff should be devoted to the process.

Costs for market monitoring will vary depending on the number of transactions that occur in a jurisdiction each year. Also, salary levels may vary based on location in Poland as well (for example, higher salaries may be expected in Warsaw than in other parts of the country). Below we provide an estimate based on average costs throughout Poland.

There are an estimated 11.8 million (see Strategic Plan, Table C column market "Ent#") taxable entities in Poland. It is estimated that 10 percent of properties in Poland will

transfer each year. Transfers include sales between private parties, auctions and transfers of ownership of state owned property to private entities. Thus, approximately 1.18 million property transfers will need to be reviewed by the market monitoring program each year. We estimate the cost for market monitoring at 6 zloty per transaction (see Cadastre Construction Brief, Table A, Estimated Costs Per Parcel for Data Collection – Physical Attributes). Therefore, annual program costs will be approximately 7 million zloty (1.18 million transactions * 6 zloty per transaction = 7.08 million zloty). This will cover the annual cost for personnel to administer the market monitoring program.

The estimated annual cost will include obtaining information on validity of the sale transaction as well as attributes of the property. Property attributes collected will include size of land and buildings, public services provided, planned use, current use and location relative to commercial centers, transportation, schools and recreational areas. For buildings, information on construction type, age and interior amenities will also be collected. Data collection personnel will collect attribute data while valuers will review the sale price and overall validity of the sale.

Computer hardware and software will be needed to develop the sales database. A fairly basic personal computer (PC) can be used in smaller jurisdictions while larger jurisdictions will need PCs with more hard disk storage space. Such computers typically cost between \$1200 USD to \$2500 USD today. The number of computers required depends on the average number of transactions that occur in the jurisdiction each year. One computer should be provided for each 5,000 transactions per year. Therefore, if there are 10,000 transactions per year in a jurisdiction then 2 computers will be sufficient.

Software required for market monitoring includes a database package (such as Microsoft Access) and software for statistical analysis (such as NCSS or SPSS). Good database and statistics packages can be purchased for roughly \$500 each. An IT specialist will need to be involved in the initial set up of the software. Thereafter IT specialists should only be needed for periodic troubleshooting.

The above-mentioned costs for hardware and software have been included in the Strategic Plan (see Strategic Plan, Country-Wide Revenue Cost Estimate for Stage I in Section 5.1 of the report). For the country these costs are estimated at 2.1 million zloty for computer equipment and 5.9 million for computer software. Therefore, the total for computer software and hardware is estimated at 8 million zloty (2.1 million zloty for hardware and 5.9 million zloty for computer software = 8 million zloty).

A recapitulation of costs associated with the market monitoring program are presented in the table below. Note that computer hardware and software cost estimates listed below encompass costs for the entire Stage I reform and are not just for market monitoring alone. They are already a part of the Stage I costs listed in the Cost of System section of this report.

Table 12 – Annual Program Costs for Market Monitoring

	Estimated No. of Transactions (Million)	Estimated Cost per Transaction (Zloty)	Total Estimated Cost (Million Zloty)
Annual Program Costs	1.18	6	7.08

Table 13 – Start-up Costs: Computer Software and Hardware Costs

Computer Hardware	2,107,000
Computer Software	5,959,800
Total (Zloty)	8,066,800